



**PRECISION
ENVIRONMENTAL SERVICES, INC.**
CONSULTING-ASSESSMENT-REMEDIATION
P.O. Box 149, Hadley, NY 12835
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August 5, 1994

Mr. Chuck Schwer
State of Vermont Department of
Environmental Conservation
Hazardous Materials Management Division
Sites Management Section
103 South Main Street/West Office
Waterbury, Vermont 05671-0404

Aug 10 10 47 AM '94
PRECISION ENVIRONMENTAL SERVICES, INC.

Re: Stewarts Ice Cream Co., Inc., shop #191, Main & Maple Streets, Poultney, Vermont
Site #93-1531

Dear Mr. Schwer:

Enclosed for your review is one (1) copy of Precision Environmental Services, Inc.'s (PES's) Initial Site Investigation Report for the above referenced site. PES has recommended the installation of two additional monitoring wells and the implementation of interim remedial measures to reduce the contaminant volume on site. Once you have had an opportunity to review the information, please contact us at (518)696-3151 to discuss this site.

Sincerely,
PRECISION ENVIRONMENTAL SERVICES, Inc.

William A. Toran
Environmental Geologist

John J. Johnson
Geotechnical Director

enclosure

cc: C. Fowler - Stewarts

INITIAL SITE INVESTIGATION
STEWARTS ICE CREAM CO. INC., - SHOP #191
MAIN & MAPLE STREETS
POULTNEY, VERMONT

Vt. - DEC Site #93-1531

PREPARED FOR:
STEWARTS ICE CREAM COMPANY, INC.
P.O. BOX 435
SARATOGA SPRINGS, NEW YORK 12866
(518)581-1201
CONTACT: CHAD FOWLER

PREPARED BY:
PRECISION ENVIRONMENTAL SERVICES, INC.
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HADLEY, NEW YORK 12835
(518)696-3151
CONTACT: BILL TORAN

AUGUST, 1994

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1.0 INTRODUCTION

Precision Environmental Services, Inc.(PES) was contracted by Stewarts Ice Cream Company, Inc. (Stewarts) to perform a limited subsurface investigation at Shop #191, located in Poultney, Vermont. An assessment of the soil and ground water characteristics and quality in the vicinity of former and present underground storage tanks (USTs) was performed to determine possible ground water contamination associated with the USTs.

2.0 BACKGROUND

2.1 Site Information

Stewarts Shop #191 is located at the southeast corner of Main and Maple Streets in the Village of Poultney, Rutland County, Vermont (Lat. 43°31'01", Long. 73°14'14"). The general site topography is flat with a very slight gradient to the west-northwest. The Poultney River borders the Village of Poultney to the south and west (approximately 1,700 and 2,600 feet, respectively, from the site). A tributary to the Poultney River is located approximately 900 feet southeast of the site. Refer to the Area Map (Figure 1).

The site is located in a mixed commercial and residential area. Main Street parallels the site's northern property border. Several commercial businesses are located on the north side of Main Street, directly across from the Stewarts Shop. Private residences are located west of the businesses on the north side of Main Street. The Poultney Public Library is located immediately adjacent to, and east of Stewarts. A public right of way (dirt alley/road) and a private residence exist south of Stewarts. Maple Street borders the Stewarts property to the West. Poultney Video and the Poultney Laundrette are located on the west side of Maple Street. Refer to the Vicinity Map for neighboring property locations (Figure 2). Property owners names and addresses (when available) are presented in Appendix A.

2.2 Site History

The site was purchased by Stewarts in 1983. According to Stewart's personnel, a three story brick structure measuring 153 feet by 43 feet occupied the site prior to Stewarts taking ownership.

The Stewarts property encompasses 0.37 acres. Stewarts Shop #191 presently occupies the site. The single story shop building is constructed of masonry block with a brick veneer and measures 47 feet by 45 feet. The building does not have a basement. Refer to the Site Map (Figure 3).

On November 8, 1993, four-4,000 gallon capacity single wall steel USTs were closed at the site. The closure was performed in response to one of the USTs failing a tightness test. Two pin size holes were observed in the bottom of UST #3. No apparent holes were observed in the remaining three USTs. Soil samples collected during UST closure indicated volatile organic compound (VOC) concentrations ranging from 1 part per million (ppm) to 340 ppm by photoionization detector (PID) analysis. Ground water

with a sheen was observed in the tank pit at a depth of approximately 13 to 14 feet below grade. Refer to the UST Closure and Site Assessment Form issued to the Vermont DEC on November 8, 1993. As a result of the UST closure, 530.51 tons of contaminated soil was transported and disposed of at Clean Berkshires, Inc.'s facility in Lanesboro, Massachusetts. The closed USTs were replaced with one-8,000 gallon capacity, and one split 8,000 gallon capacity double wall steel USTs. The new USTs were installed in the same excavation the closed USTs previously occupied.

2.3 Potential Receptor Survey

A survey to identify potential contaminant receptors was performed. Two municipal (Village of Poultney) water wells are located approximately 2,300 feet west of the site. The municipal water wells are located adjacent to the Poultney River, between the river and Green Mountain State College. The wells are used for supplying potable water to the Village of Poultney.

A survey of surrounding property owners indicated that all of the buildings in the area of interest have basements. However, generally the basement foundations do not have sumps and sump pumps due to the depth of ground water being greater than the basement floors. The average depth to the initial water table during monitoring well gauging on May 11, 1994 was 8.5 feet (refer to section 4.3).

Underground utilities (water and sewer lines) are located beneath Main and Maple Streets. These utilities are generally located at depths of less than 6 feet below grade (Figure 3).

3.0 SCOPE OF WORK

The purpose of this investigation was to assess the impact of petroleum contamination to ground water in the vicinity of the USTs. Tasks performed included:

- ▽ Installation and development of 5 monitoring wells.
- ▽ Gauging of all monitoring wells and development of a ground water gradient map.
- ▽ Ground water sampling and laboratory analysis of all monitoring wells.
- ▽ Preparation of a report of findings.

4.0 METHODOLOGIES AND RESULTS

4.1 Monitoring Well Installation and Development

On April 26, 1994, five 2- inch diameter PVC monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5), were installed at the Stewarts site by Technical Drilling Services, Inc. under the supervision of a PES geologist. The wells were installed in overburden material using hollow stem auger drilling techniques.

Monitoring wells were installed to an average depth of 17 feet below grade. The initial water table was encountered at depths ranging from 9 to 10 feet below grade at the time of drilling. The annular space surrounding the well screen was packed with clean silica sand to a depth of approximately 1.0 foot above the screened interval. Two foot bentonite seals were placed immediately above the sand pack. Each well was completed by cementing a steel, flush mounted protective manhole over the well riser. Refer to the enclosed drilling logs for construction details for individual wells (Attachment B).

The monitoring wells were installed around the spill location to aid in determining the impact of petroleum hydrocarbons on the surrounding subsurface. Monitoring well MW-1 was installed southeast and upgrading of the USTs. MW-2, MW-3 and MW-4 were installed down gradient and north, northwest, and west of the UST location, respectively. MW-5 was installed off site, in the Maple Street right of way, at a location further west of MW-3. The monitoring well locations are illustrated on Figure 3.

Well development was performed by repeatedly surging and bailing the monitoring wells to remove residual silt and clay. Approximately 5 volumes of ground water were purged from each monitoring well during bailing. Purged ground water was allowed to percolate into the ground in the vicinity of the monitoring wells.

4.2 Soil Sampling and Photoionization Analysis

Split spoon and auger cutting soil samples were obtained at each bore hole. The samples were described on drilling logs by a PES geologist using a modified Burmister classification system. The split spoon samples and drill cuttings were screened for volatile organic compounds (VOCs) during drilling operations using a photoionization detector (PID) calibrated to a benzene standard. Representative portions of split spoon and drill cutting samples obtained during the soil boring program were sealed in clean plastic bags and classified. After allowing for equilibration of the samples, the headspace in each sample was scanned with the PID by inserting the probe tip into the plastic bag. Soil sample descriptions and VOC concentrations are recorded on the respective drilling logs (Attachment B) and summarized in Table 1 below.

Table 1 - PID Soil Analysis Summary

Depth (ft. below grade)	MW I.D. and PID Reading (ppm)				
	MW-1	MW-2	MW-3	MW-4	MW-5
5 - 7'	ND	ND	ND	ND	ND
7 - 9'	ND	NA	NA	NA	NA
9 - 11'	ND	NA	NA	NA	NA
10 - 12'	NA	2	140	2	6
11 - 13'	ND	NA	NA	NA	NA
13 - 15'	ND	NA	NA	NA	NA
15 - 17'	ND	1	25	1	17
17 - 19'	ND	NA	NA	NA	NA
ND = none detected NA = not sampled (different sampling interval)					

The overburden material encountered in all of the boreholes generally consisted of sand with some gravel and minor quantities of silt. A silt layer was encountered at depths of 18.5 and 17 feet below grade in borings MW-1, and MW-4, respectively.

VOCs were not detected during PID analysis of soil samples retrieved from boring MW-1. Soil samples retrieved from MW-2, 3, 4, and 5 indicated VOC concentrations ranging from none detectable to 140 parts per million (ppm) by PID analysis. Refer to the drilling logs (Attachment B)

4.3 Monitoring Well Gauging and Ground Water Gradient Determination

On April 26, 1994, the top of casings elevations for monitoring wells MW-1 through MW-5 were surveyed in order to calculate the ground water flow direction and gradient. The elevations were determined from a benchmark which was arbitrarily chosen as the top of the north end of the pump island lighting base. The benchmark was assigned an elevation of 100.00 feet. The elevations which resulted are accurate to +/-0.01 feet.

The depth to water in each monitoring well was gauged on May 11, 1994 using an electronic interface probe. Separate phase petroleum was not encountered in any of the monitoring wells at this time. From data collected, ground water flow on site was calculated to be in an west-southwesterly direction at an average gradient of 1.3%. This data is contained in Attachment C and is illustrated on the Ground Water Contour Map (Figure 4).

Depth to water ranges from 8.22 (MW-2) to 8.97 (MW-4) feet during the well gauging event. Ground water was observed at a depth of approximately 13 to 14 feet below grade during UST closure on November 8, 1993. This observed variation may be attributable to seasonal ground water fluctuations.

4.4 Monitoring Well Sampling and Ground Water Analysis

On May 11, 1994, monitoring wells MW-1, MW-2, MW-3, MW-4 and MW-5 were sampled for volatile organic compounds via EPA Method 602 modified to include methyl tertiary butyl ether (MTBE). Prior to sampling, a minimum of three well volumes of ground water was purged from the wells to provide collection of representative samples. Purged water was allowed to percolate into the ground in the vicinity of the respective wells. All samples were acidified and refrigerated for preservation, and delivered to Adirondack Environmental Services, Inc. in Albany, New York for analysis.

Laboratory results indicate total BTEX (benzene, toluene, ethylbenzene, and total xylenes) in monitoring wells MW-3, MW-4, and MW-5 at concentrations of 3,413 parts per billion (ppb), 4,305 ppb, and 7,150 ppb, respectively. The distribution of BTEX compounds in ground water is illustrated on Figure 5.

Methyl tertiary butyl ether (MTBE) was present in monitoring wells MW-1, MW-2, and MW-5 at concentrations of 2 ppb, 4 ppb, and 900 ppb, respectively. Laboratory reports are enclosed in Attachment D and summarized in Table 2 below.

Table 2 Ground Water Analysis Summary

Well ID	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	MTBE
MW-1	<0.5	<1	<1	<1	2
MW-2	<0.5	<1	<1	<1	4
MW-3	<5	240	73	3100	<10
MW-4	<5	2105	<50	2200	<10
MW-5	440	410	300	6000	900

- results expressed in ppb.

The contaminant plume illustrated in Figure 5 does not directly correspond to the ground water flow direction depicted in Figure 4. A slight variation of the flow direction may be attributed to the water table being relatively high during the spring season.

5.0 CONCLUSIONS

The following conclusions are offered, based solely on data collected from this limited subsurface investigation. Subsurface conditions at other locations on site may differ from those encountered during this investigation.

- ▽ Soil conditions generally consisted of sand with gravel and small quantities of silt. A silt layer was encountered at a depth of 18.5 feet below grade at boring MW-1.
- ▽ PID analysis of soil samples indicated no detectable concentrations of VOCs in boring MW -1. PID analysis of soil samples retrieved from borings MW-2-5 indicated VOC concentrations ranging from none detected to 140 ppm.
- ▽ Monitoring well gauging data indicates ground water flow is toward the west at an average gradient of 1.4%. The average depth to water on May 11, 1994 was 8.5 feet. Ground water was observed at a depth of approximately 13 to 14 feet below grade during UST closure on November 8, 1993. This indicates the water table is capable of fluctuating approximately 4 to 5 feet.
- ▽ Laboratory results indicate total BTEX (benzene, toluene, ethylbenzene, and total xylenes) in monitoring wells MW-3, MW-4, and MW-5 at concentrations of 3,413 parts per billion (ppb), 4,305 ppb, and 7,150 ppb, respectively. Methyl tertiary butyl ether (MTBE) was present in monitoring wells MW-1, MW-2, and MW-5 at concentrations of 2 ppb, 4 ppb, and 900 ppb, respectively.

6.0 RECOMMENDATIONS

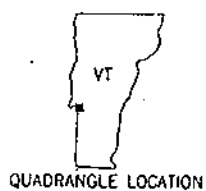
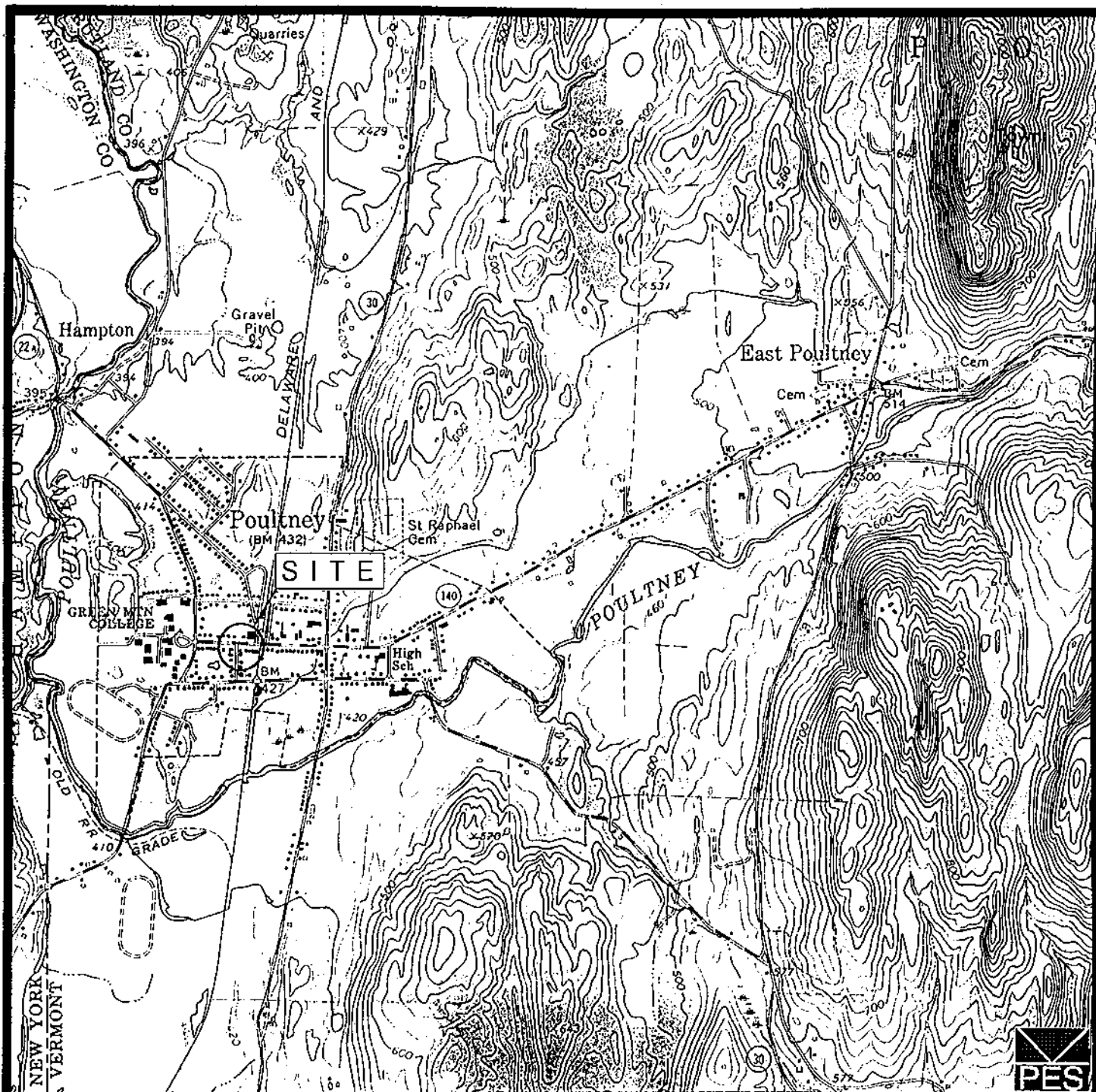
Based on the data collected during this limited investigation, PES recommends continued monitoring of the site. The monitoring wells should be sampled monthly to determine ground water contaminant concentration trends. Monitoring well sampling can be reduced to quarterly sampling and gauging once sufficient background data is established. Gauging data may be useful for determining the range of seasonal water table fluctuation, and its affect on the ground water flow/contaminant plume migration direction.

To further delineate the contaminant plume, two additional monitoring wells should be installed down gradient of the existing wells. One well should be installed on the west side of Maple Ave., south of MW-5. The second monitoring well should be installed on the south side of Main Street, west of MW-5.

Interim remedial measures should be taken in order to contain and reduce the volume of petroleum contamination in the subsurface. The site geology appears to be conducive to soil ventilation and/or air sparging remedial techniques. Soil ventilation may be used to initially remove a large percentage of the gasoline contamination. The soil ventilation system may be augmented by air sparging at a later date to remove residual contamination. PES recommends performing a soil ventilation pilot study to determine design parameters for this remedial technique. Details of the pilot testing can be presented in a Corrective Action Feasibility Pilot Test correspondence once corrective action is determined to be necessary by the Sites Management Section of the DEC. The need for a ground water pump and treatment system to contain the contaminant plume will also be evaluated. The pump and treatment system may expedite site clean up by exposing contaminated soil below the water table.

This report was prepared in accordance with standards of environmental geologic practice generally accepted in Vermont at the time of this investigation. The investigation was conducted solely for the purpose of evaluating subsurface environmental conditions of the ground water with respect to the on-site petroleum release. No soil engineering or geotechnical references, conclusions, or recommendations are implied or should be inferred. Evaluation of the geologic and environmental conditions at the site for the purposes of this investigation are made from a limited number of observation points. Subsurface conditions may vary away from the data points available. In particular, the nature of the soil and ground water quality beyond the points sampled is unknown, and constituents of concern may be present that were not analyzed for during this investigation.

FIGURES



QUADRANGLE LOCATION

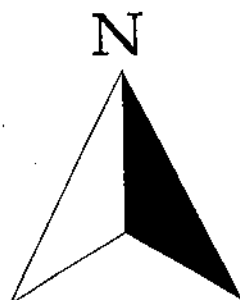
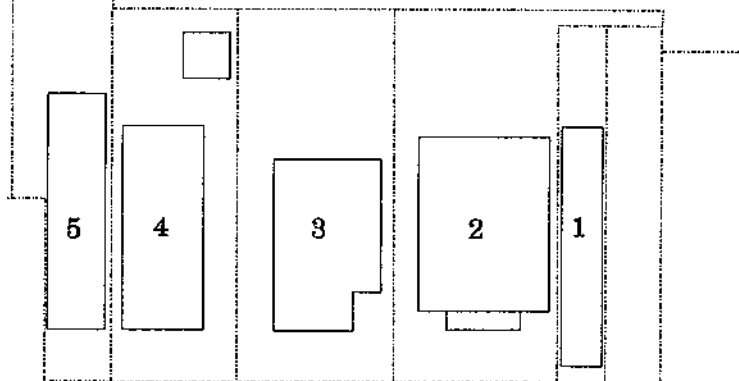


Figure 1
Area Map
Stewarts Ice Cream Co. Inc.- Shop #191
Poultney, VT

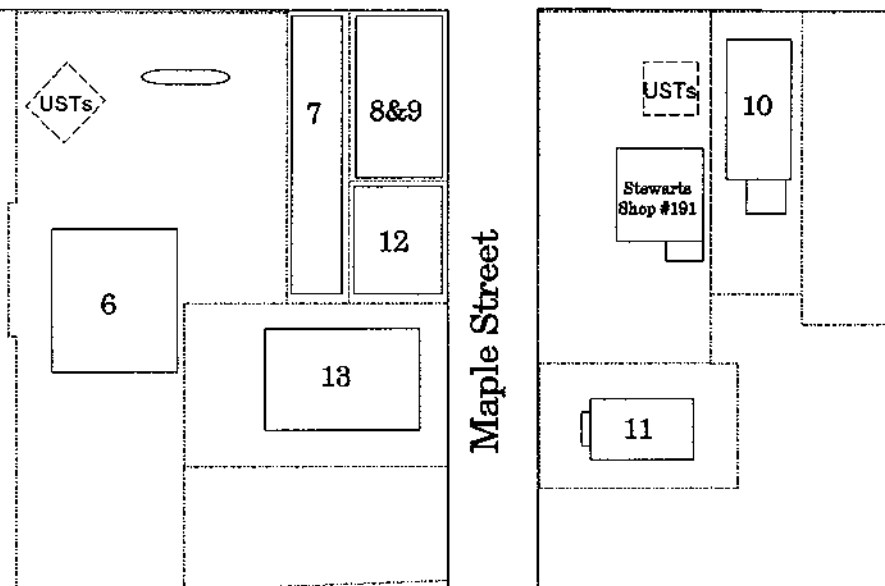
USGS 7.5 min. Quadrangle
Poultney, Vermont

1"= 2000'
Contour Interval = 20'

North



Main Street



NOTE: 1. Refer to Appendix A for addresses of corresponding property numbers.
2. Building dimensions and locations are approximate.

Map adapted from Village of Poultney tax maps.

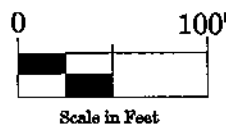
PRECISION ENVIRONMENTAL SERVICES, INC.



Date: 7 - 1994

Project No.:

Vicinity Map



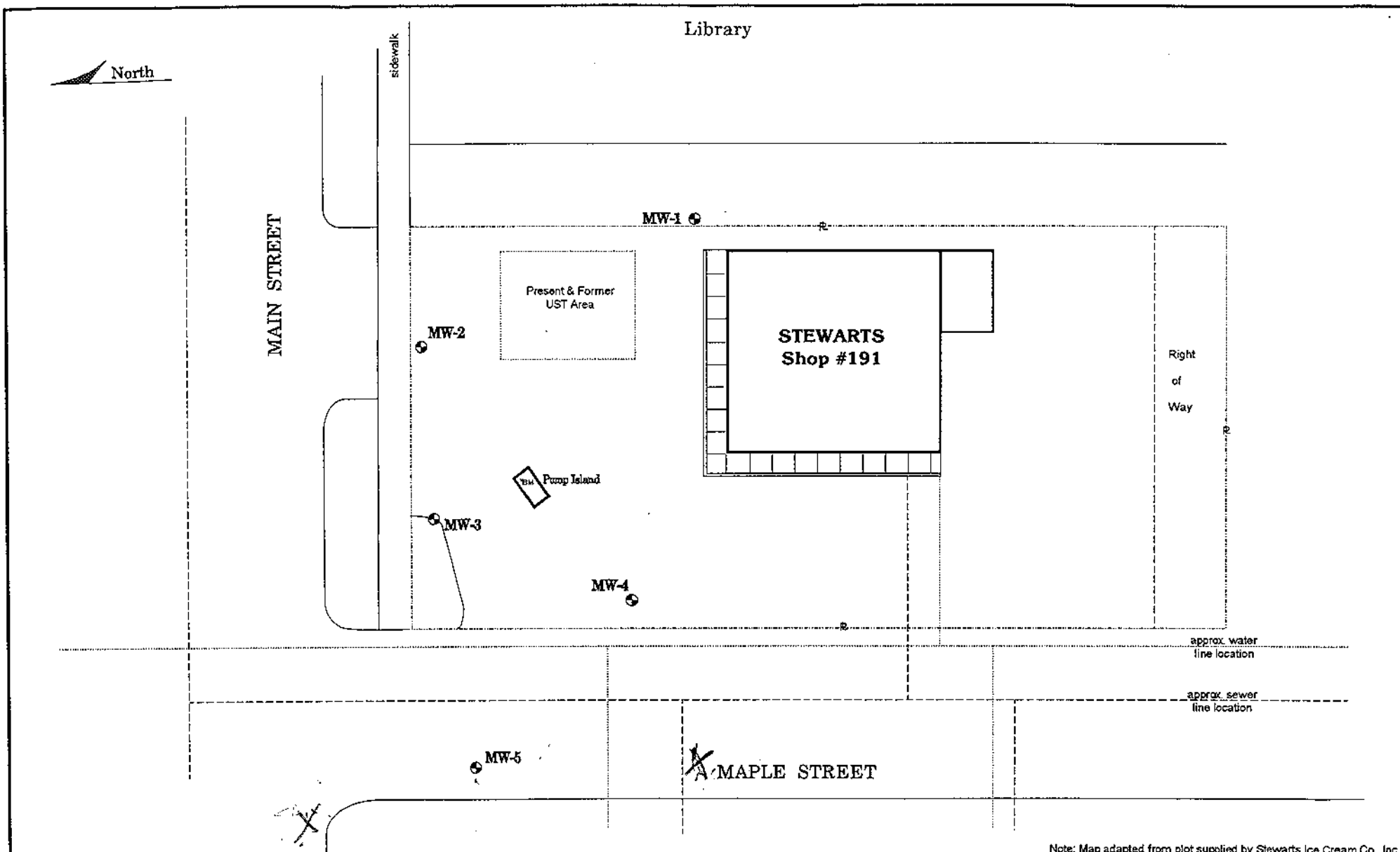
Stewart's Shop #191

Scale: 1 Inch = 100 feet

Figure: 2

Drawn By: BT

Location: Poultney, VT



PRECISION ENVIRONMENTAL SERVICES, INC.



Date: 6-1994

Project No.:

Site Map

● - Monitoring well location and ID



Scale: 1 Inch = 30 Feet

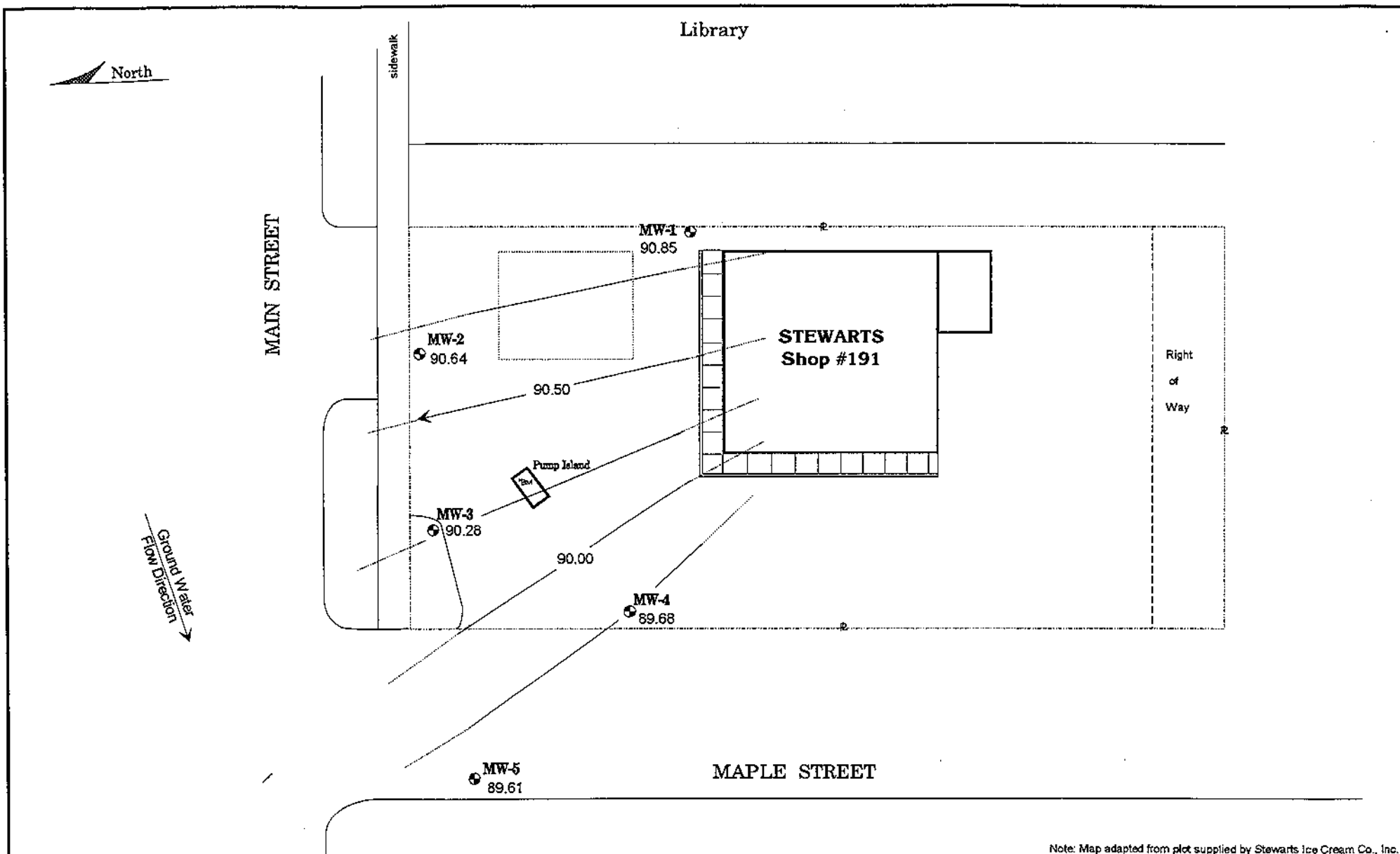
Figure No.: 3

Stewarts Shop #191, Poultney, Vt.

MW-4

Drawn By: WME

Location: Poultney, VT



Note: Map adapted from plot supplied by Stewarts Ice Cream Co., Inc.

PRECISION ENVIRONMENTAL SERVICES, INC.



Date: 6-1994

Project No.:

Ground Water Contour Map
(5/11/94)

Stewarts Shop #191, Poultney, Vt.

- MW-4 - Monitoring well location and relative water table elevation
- 89.68
- 90.00 - Water table contour, 0.25' interval (dashed where inferred)

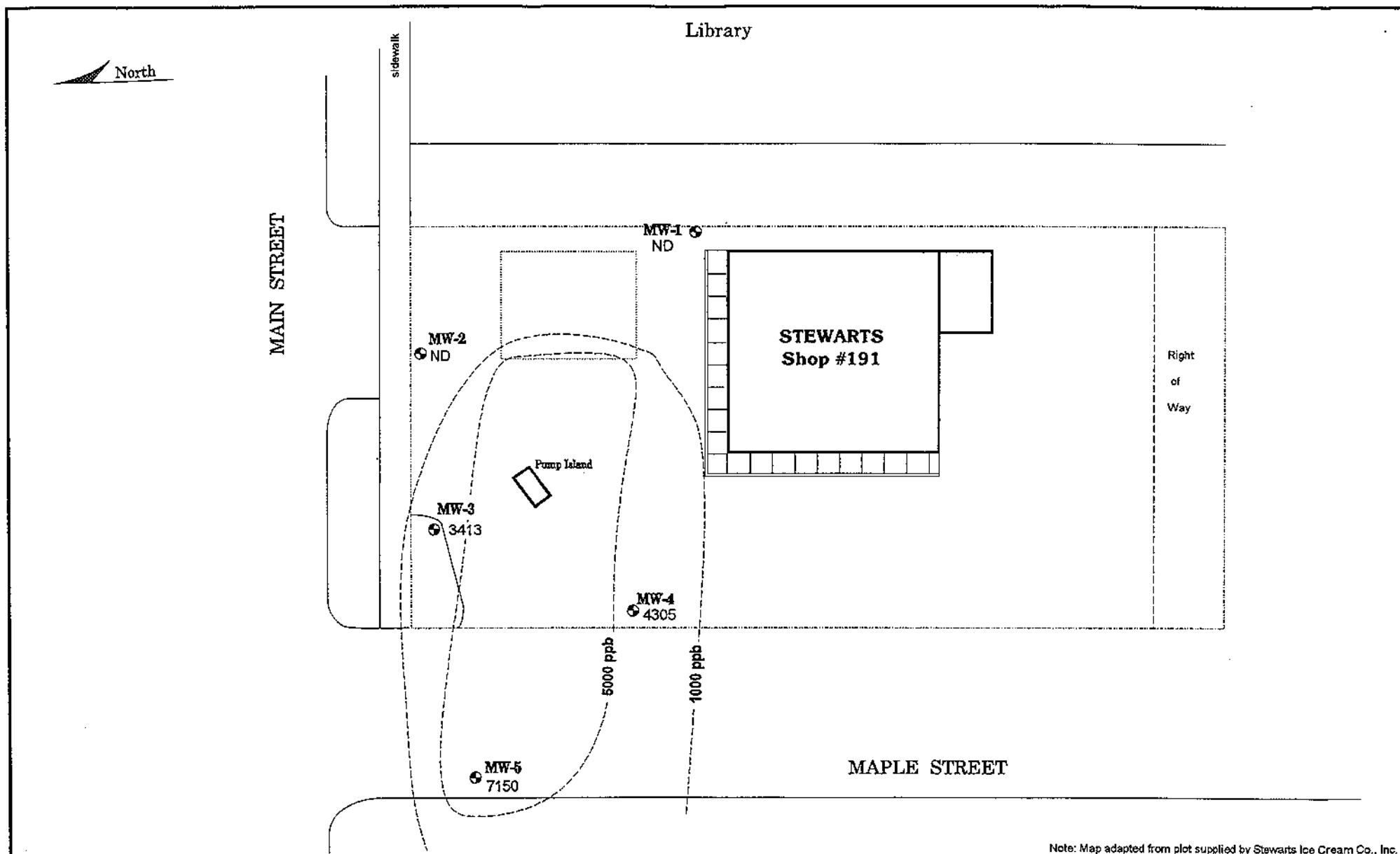


Scale: 1 Inch = 30 Feet


Figure No.: 4

Drawn By: WME

Location: Poultney, VT



Note: Map adapted from plot supplied by Stewarts Ice Cream Co., Inc.

PRECISION ENVIRONMENTAL SERVICES, INC. 		Date: 6-1994	Project No.:
BTEX in Ground Water Map (5/11/94) Stewarts Shop #191, Poultney, Vt.		Scale: 1 Inch = 30 Feet	Figure No.: 5
MW-4 - Monitoring well ID 4305 - Total concentration of BTEX compounds detected via EPA 602 expressed in ppb. ND - No BTEX compounds detected		Drawn By: WME	Location: Poultney, VT



ATTACHMENT A
NEIGHBORING PROPERTY OWNERS

Neighboring Property Owners

<u>Location</u>	<u>Property Owner</u>
1. Preseau's Place (liquor store & deli) 27 Main St. Poultney, VT. 05764	Edmond & Mary Preseau Rd 2, Box 197 Poultney, VT 05764
2. Debonis, Wright & Winpenny (attorneys) 25 Main St. Poultney, VT 05764	same
3. Raymond Ellis Williams (insur. agent & home) 19-23 Main St. Poultney, VT 05764	Raymond E. Williams PO Box 164 Poultney, VT 05764
4. James M. & Mary D. Foley (home) 17 Main St. Poultney, VT 05764	same
5. Lorraine & Robert P. Jones (home) 13 Main St. Poultney, VT 05764	same
6. BP Gas Station - MT. Associates Main St Poultney, VT 05764	MT. Associates 217 N. Main St. Rutland, VT 05701
7. Simple Styles (hair salon) Main St. Poultney, VT 05764	Mark W. & Beverly S. Fedolfi 5 Rae Terrace Poultney, VT 05764
8.&9. Tower Pizza & Poultney Launderette Corner of Main and Maple St.s Poultney, VT 05764	Lorraine & Robert Williams 24 College St. Poultney, VT 05764
10. Poultney Library Main St. Poultney, VT 05764	same
11. Ellen L. Jones Maple St. Poultney, Vt 05764	Ellen L. Jones 4642 S. 34th St. Arlington, VA. 22206
12. Carmen H. Bissel Maple St. Poultney, Vt. 05764	Carmen H. Bissel 266 Private Rd. E. Patchague, NY
13. Roxanne M. Cambell & Darryl West Maple St. Poultney, Vt. 05764	same

ATTACHMENT B

DRILLING LOGS



PRECISION
Environmental Services, Inc.

P.O. Box 149 Hadley, NY 12835
TEL: 518 696-8151
FAX: 518 696-8152

DRILLING LOG

Page 1 of 1

Project: Stewarts/Poultney, VT Client: Stewarts Ice Cream Co., Inc.

Project No.: _____ Location: Main & Maple St.s, Poultney, Vt.

Driller: Peter Dueshane Logged by: B. Toran

Drilling Contractor: TDS Drilling Method: hollow stem auger

Date Drilled: April 26, 1994 Date Developed: April 26, 1994

M.P. Elev.: 99.16 W.L. Initial: 10' W.L. Static: _____

Total Depth of Hole: 19' Diameter: 4.25" ID

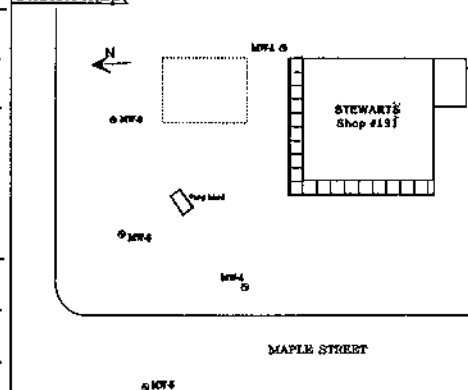
Screen: Dia.: 2" Length: 10' Slot Size: 0.010"

Casing: Dia.: 2" Length: 7' Type: PVC

Sand Pack: #1 Bentonite Seal: pellets Protective Casing: flush

Well/ Boring No. MW-1

Sketch Map:



Depth (ft.)	Well Construction	Notes (blows, etc.)	Sample Type/ #	PID (ppm)	Description/ Soil Classification
0	roadbox cement backfill riser bentonite		AF	ND	Brown, moist, med.(-) fine SAND.
5		6-3-4-3 rec= 0.5'	SS 5-7'	ND	do
		5-5-4-9 rec= 0.75'	SS 7-9'	ND	do
10		5-3-4-4 rec= 0.25'	SS 9-11'	ND	Brown, wet, fine SAND, trace fine Gravel.
		5-7-6-7 rec= 1.5'	SS 11-13'	ND	Brown, wet, med.(+) fine SAND, trace fine Gravel.
		4-8-17-12 rec= 2.0'	SS 13-15'	ND	do
15		9-22-13-13 rec= 1.0'	SS 15-17'	ND	Brown, wet, med.(-) fine SAND.
	sand pack well screen	3-3-4-6 rec= 2.0'	SS 17-19'	ND	Brown, wet, SILT, little Silt.
20					EOE = 19'

Note: ND = no VOCs detected by PID analysis.



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Page 1 of 1

DRILLING LOG

Project: Stewarts/Poultney, VT Client: Stewarts Ice Cream Co., Inc.

Project No.: _____ Location: Main & Maple St.s, Poultney, Vt.

Driller: Peter Dueshane Logged by: B. Toran

Drilling Contractor: TDS Drilling Method: hollow stem auger

Date Drilled: April 26, 1994 Date Developed: April 26, 1994

M.P. Elev.: 98.86 W.L. Initial: 10' W.L. Static: _____

Total Depth of Hole: 17' Diameter: 4.25" ID

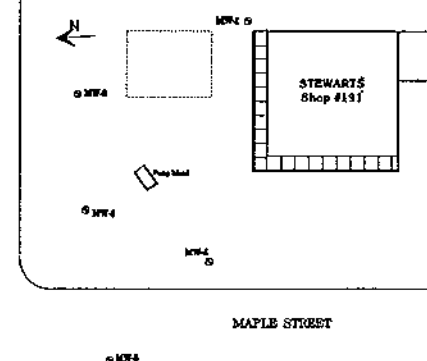
Screen: Dia.: 2" Length: 10' Slot Size: 0.020"

Casing: Dia.: 2" Length: 7' Type: PVC

Sand Pack: #2 Bentonite Seal: pellets Protective Casing: flush

Well/ Boring No. MW-2

Sketch Map:



Depth (ft.)	Well Construction	Notes (blows, etc.)	Sample Type/ #	PID (ppm)	Description/ Soil Classification
0	roadbox cement backfill riser bentonite		AF	ND	Asphalt Brown, moist, SAND, some fine Gravel (fill).
5		9-4-5-6 rec= 1.2'	SS 5-7'	ND	Brown-gray, moist, coarse(-)med. SAND, little med.(-)fine Gravel.
10		2-2-3-4 rec= 1.5'	AF	1	Brown, wet, med.(+)fine SAND, trace fine Gravel and Silt.
15		4-7-11-8 rec=2.0'	AF	1	do.
20	sand pack well screen				EOE = 17'

Note: ND = no VOCs detected by PID analysis.



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DRILLING LOG

Page 1 of 1

Project: Stewarts/Poultney, VT Client: Stewarts Ice Cream Co., Inc.

Well/ Boring No. MW-3

Project No.: _____ Location: Main & Maple St.s, Poultney, Vt.

Driller: Peter Dueshane Logged by: B. Toran

Drilling Contractor: TDS Drilling Method: hollow stem auger

Date Drilled: April 26, 1994 Date Developed: April 26, 1994

M.P. Elev.: 98.99' W.L. Initial: 10' W.L. Static: _____

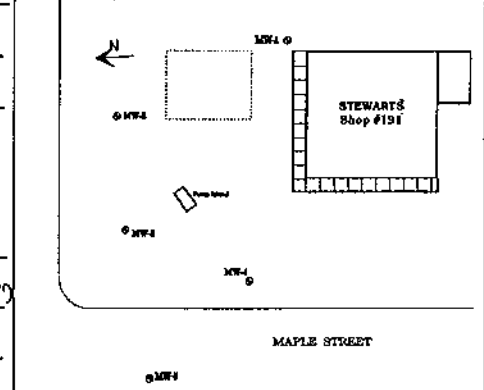
Total Depth of Hole: 17' Diameter: 4.25" ID

Screen: Dia.: 2" Length: 10' Slot Size 0.020"(12-17")/0.040"(12-7")

Casing: Dia.: 2" Length: 7' Type: PVC

Sand Pack: #2 Bentonite Seal: pellets Protective Casing: flush

Sketch Map:



Depth (ft.)	Well Construction	Notes (blows, etc.)	Sample Type/ #	PID (ppm)	Description/ Soil Classification
0	roadbox cement backfill riser bentonite		AF	ND	Brown, moist, fine SAND and SILT.
5		4-7-10-8 rec= 1.0'	SS 5-7'	ND	Brown, moist, SAND, some fine Gravel.
10		5-4-3-4 rec= 1.5'	AF	1	Brown, moist, med.(+)fine SAND, little fine Gravel, trace Silt.
15		2-4-5-7 rec=2.0'	SS 10-12'	140	Brown, wet, med.(+)fine SAND, little fine Gravel.
20	sand pack well screen		SS 15-17'	25	Brown, wet, fine SAND.
					EOE= 17'

Note: ND = no VOCs detected by PID analysis.



PRECISION
Environmental Services, Inc.

P.O. Box 149 Hadley, NY 12835
TEL: 518 696-3151
FAX: 518 696-3152

DRILLING LOG

Page 1 of 1

Project: Stewarts/Poultney, VT Client: Stewarts Ice Cream Co., Inc.

Well/ Boring No. MW-4

Project No.: _____ Location: Main & Maple St.s, Poultney, Vt.

Driller: Peter Dueshane Logged by: B. Toran

Drilling Contractor: TDS Drilling Method: hollow stem auger

Date Drilled: April 26, 1994 Date Developed: April 26, 1994

M.P. Elev.: 98.65' W.L. Initial: 10' W.L. Static: _____

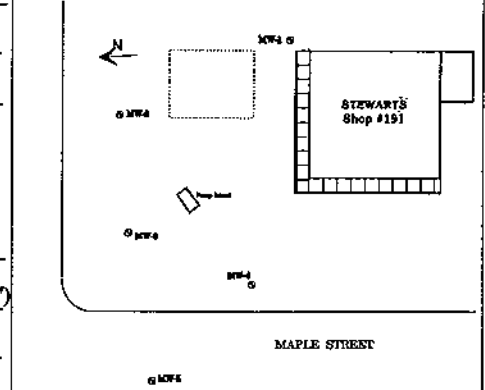
Total Depth of Hole: 17' Diameter: 4.25" ID

Screen: Dia.: 2" Length: 10' Slot Size 0.020"(12-17)/0.040"(7-12)

Casing: Dia.: 2" Length: 7' Type: PVC

Sand Pack: #2 Bentonite Seal: pellets Protective Casing: flush

Sketch Map:



Depth (ft.)	Well Construction	Notes (blows, etc.)	Sample Type/ #	PID (ppm)	Description/ Soil Classification
0	roadbox cement backfill riser bentonite		AF	ND	Asphalt Brown, moist, fine SAND and SILT, some fine Gravel
5		22-6-5-7 rec= 1.5'	SS 5-7'	ND	Boulder(?) - rock fragments Brown, moist, med.(-)fine SAND, trace Silt.
10		6-4-5-6 rec= 2.0'	SS 10-12'	2	Brown, wet, med.(+)coarse SAND, little fine Gravel.
15		3-3-3-5 rec=2.0'	SS 15-17'	1	Brown, wet, med.(-)fine SAND, trace fine Gravel. Brown, wet, SILT.
20	sand pack well screen				EOE = 17'

Note: ND = no VOCs detected by PID analysis.



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DRILLING LOG

Page 1 of 1

Project: Stewarts/ Poultney, VT Client: Stewarts Ice Cream Co., Inc.

Project No.: _____ Location: Main & Maple St.s, Poultney, Vt.

Driller: Peter Dueshane Logged by: B. Toran

Drilling Contractor: TDS Drilling Method: hollow stem auger

Date Drilled: April 26, 1994 Date Developed: April 26, 1994

M.P. Elev.: 98.04' W.L. Initial: 9' W.L. Static: _____

Total Depth of Hole: 17' Diameter: 4.25" ID

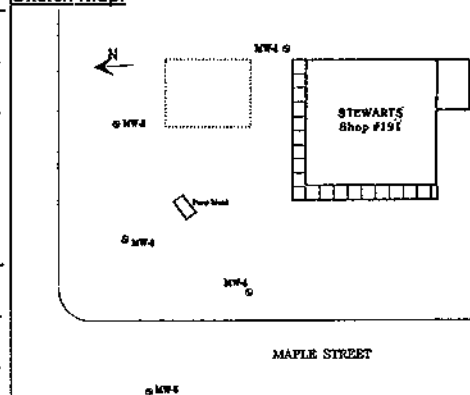
Screen: Dia.: 2" Length: 10' Slot Size: 0.020"

Casing: Dia.: 2" Length: 7' Type: PVC

Sand Pack: #2 Bentonite Seal: pellets Protective Casing: flush

Well/ Boring No. MW-5

Sketch Map:



Depth (ft.)	Well Construction	Notes (blows, etc.)	Sample Type/ #	PID (ppm)	Description/ Soil Classification
0	roadbox cement backfill riser bentonite		AF	ND	Asphalt
5		7-7-5-7 rec= 1.0'	SS 5-7'	ND	Brown, moist, fine GRAVEL and SAND.
10		1-2-4-4 rec= 1.0'	AF	6	Brown, moist, SAND, some med.(-)fine Gravel.
15		1-3-10-14 rec=1.5'	SS 10-12'	17	Brown, wet, med.(+)fine SAND, trace Gravel.
20	sand pack well screen				Brown, wet, coarse(+)fine SAND, trace fine Gravel.

Note: ND = no VOCs detected by PID analysis.

ATTACHMENT C
WELL GAUGING DATA SHEET

WELL GAUGING DATA SHEET

SITE NAME: Stewarts Shop #191, Poultney, Vt.

LOCATION: Main & Maple St.s, Poultney, Vt.

WEATHER: clear, 70 degrees F

DATE: May 11, 1994

TECHNICIAN: J. Johnson

INSTRUMENT ID: I.P. (ORS) # 347

WELL NO.	T.O.C.	D.T.P.	D.T.W.	PROD. LAYER	WATER TABLE ELEV.	OBSERVATIONS:
MW-1	99.16	NA	8.31	0.00	90.85	
MW-2	98.86	NA	8.22	0.00	90.64	
MW-3	98.99	NA	8.71	0.00	90.28	slight petro. odor
MW-4	98.65	NA	8.97	0.00	89.68	very slight petro. odor
MW-5	98.04	NA	8.43	0.00	89.61	slight petro. odor

PRODUCT REMOVED FROM WELLS NO XXXX YES
 SHEEN CONFIRMED BY BAIOR? NO YES XXXX
 WELLS SAMPLED? NO YES XXXX

ATTACHMENT D

LABORATORY ANALYSIS REPORT



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LABORATORY REPORT

for

Stewarts Ice Cream Company
PO Box 435
Saratoga Spring, NY 12866

Attention: Chad Fowler

Report date: 05/25/94
Number of samples analyzed: 5
AES Project ID: 940512AS
Invoice #: 137763

CC: M. Passaretti
Precision Enviro



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CLIENT: Stewarts Ice Cream Company

Date Sampled: 05/11/94

CLIENT'S SAMPLE ID: MW-1

Date sample received: 05/12/94

AES sample #: 940512AS01

Samples taken by: John Johnson

Location: Poultney, VT

MATRIX: water

grab

<u>PARAMETER PERFORMED</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>NOTEBK</u>	<u>REF</u>	<u>TEST</u>	<u>DATE</u>
Benzene	EPA-602	<0.5	ug/l	PB-C		05/19/94	
Toluene	EPA-602	<1	ug/l	PB-C		05/19/94	
Ethylbenzene	EPA-602	<1	ug/l	PB-C		05/19/94	
Chlorobenzene	EPA-602	<1	ug/l	PB-C		05/19/94	
p-Dichlorobenzene	EPA-602	<1	ug/l	PB-C		05/19/94	
m-Dichlorobenzene	EPA-602	<1	ug/l	PB-C		05/19/94	
o-Dichlorobenzene	EPA-602	<1	ug/l	PB-C		05/19/94	
Xylenes	EPA-602	<1	ug/l	PB-C		05/19/94	
Methyl-t-Butyl Ether	EPA-602	2	ug/l	PB-C		05/19/94	



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CLIENT: Stewarts Ice Cream Company

Date Sampled: 05/11/94

CLIENT'S SAMPLE ID: MW-2

Date sample received: 05/12/94

AES sample #: 940512AS02

Samples taken by: John Johnson

Location: Poultney, VT
grab

MATRIX: water

<u>PARAMETER PERFORMED</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>NOTEBK REF</u>	<u>TEST DATE</u>
Benzene	EPA-602	<0.5	ug/l	PB-C	05/19/94
Toluene	EPA-602	<1	ug/l	PB-C	05/19/94
Ethylbenzene	EPA-602	<1	ug/l	PB-C	05/19/94
Chlorobenzene	EPA-602	<1	ug/l	PB-C	05/19/94
p-Dichlorobenzene	EPA-602	<1	ug/l	PB-C	05/19/94
m-Dichlorobenzene	EPA-602	<1	ug/l	PB-C	05/19/94
o-Dichlorobenzene	EPA-602	<1	ug/l	PB-C	05/19/94
Xylenes	EPA-602	<1	ug/l	PB-C	05/19/94
Methyl-t-Butyl Ether	EPA-602	4	ug/l	PB-C	05/19/94



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CLIENT: Stewarts Ice Cream Company

Date Sampled: 05/11/94

CLIENT'S SAMPLE ID: MW-3

Date sample received: 05/12/94

AES sample #: 940512A303

Samples taken by: John Johnson

Location: Poultney, VT
grab

MATRIX: water

<u>PARAMETER PERFORMED</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>NOTEBK</u>	<u>REF</u>	<u>TEST</u>	<u>DATE</u>
Benzene	EPA-602	<5	ug/l	PB-C		05/19/94	
Toluene	EPA-602	240	ug/l	PB-C		05/19/94	
Ethylbenzene	EPA-602	73	ug/l	PB-C		05/19/94	
Chlorobenzene	EPA-602	<50	ug/l	PB-C		05/19/94	
p-Dichlorobenzene	EPA-602	<50	ug/l	PB-C		05/19/94	
m-Dichlorobenzene	EPA-602	<50	ug/l	PB-C		05/19/94	
o-Dichlorobenzene	EPA-602	<50	ug/l	PB-C		05/19/94	
Xylenes	EPA-602	3100	ug/l	PB-C		05/19/94	
Methyl-t-Butyl Ether	EPA-602	<10	ug/l	PB-C		05/19/94	



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CLIENT: Stewarts Ice Cream Company

CLIENT'S SAMPLE ID: MW-4

AES sample #: 940512AS04

Date Sampled: 05/11/94

Date sample received: 05/12/94

Samples taken by: John Johnson

Location: Poultney, VT
grab

MATRIX: water

<u>PARAMETER PERFORMED</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>NOTEBK</u>	<u>REF</u>	<u>TEST DATE</u>
Benzene	EPA-602	<5	ug/l	PB-C		05/19/94
Toluene	EPA-602	2105	ug/l	PB-C		05/19/94
Ethylbenzene	EPA-602	<50	ug/l	PB-C		05/19/94
Chlorobenzene	EPA-602	<50	ug/l	PB-C		05/19/94
p-Dichlorobenzene	EPA-602	<50	ug/l	PB-C		05/19/94
m-Dichlorobenzene	EPA-602	<50	ug/l	PB-C		05/19/94
o-Dichlorobenzene	EPA-602	<50	ug/l	PB-C		05/19/94
Xylenes	EPA-602	2200	ug/l	PB-C		05/19/94
Methyl-t-Butyl Ether	EPA-602	<10	ug/l	PB-C		05/19/94



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CLIENT: Stewarts Ice Cream Company

Date Sampled: 05/11/94

CLIENT'S SAMPLE ID: MW-5

Date sample received: 05/12/94

AES sample #: 940512AS05

Samples taken by: John Johnson

Location: Poultney, VT
grab

MATRIX: water

<u>PARAMETER PERFORMED</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>NOTEBOOK</u>	<u>REF</u>	<u>TEST DATE</u>
Benzene	EPA-602	440	ug/l	PB-C		05/19/94
Toluene	EPA-602	410	ug/l	PB-C		05/19/94
Ethylbenzene	EPA-602	300	ug/l	PB-C		05/19/94
Chlorobenzene	EPA-602	<100	ug/l	PB-C		05/19/94
p-Dichlorobenzene	EPA-602	<100	ug/l	PB-C		05/19/94
m-Dichlorobenzene	EPA-602	<100	ug/l	PB-C		05/19/94
o-Dichlorobenzene	EPA-602	<100	ug/l	PB-C		05/19/94
Xylenes	EPA-602	6000	ug/l	PB-C		05/19/94
Methyl-t-Butyl Ether	EPA-602	900	ug/l	PB-C		05/19/94

APPROVED BY: Tara Denis

Report date: 05/25/94



314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

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CHAIN OF CUSTODY RECORD

CLIENT NAME <u>PES/Stewart's</u> <u>Ice Cream Co</u>	PROJECT NAME (Location) <u>Poultney, Vt.</u> <u>Shop #191</u>	SAMPLERS: (Names) <u>John Johnson</u>
ADDRESS <u>PO Box 149, Poultney, NY 12835</u> <u>Saratoga</u>	PO NUMBER <u>Direct Bill</u>	SAMPLERS: (Signature) <u>[Signature]</u>

AES SAMPLE NUMBER	CLIENT SAMPLE IDENTIFICATION & LOCATION	DATE SAMPLED	TIME A.m. P.m.	SAMPLE TYPE			NUMBER OF CONT'S	ANALYSIS REQUIRED
				MATRIX	S	P		
940512 FSD1	MW - 1	5/11/94		A P	H ₂ O	X	2	EPA CO ₂ + MTBE
02	MW - 2	↓		A P	↓	X	2	↓
03	MW - 3			A P	↓	X	2	
04	MW - 4			A P	↓	X	2	
05	MW - 5			A P	↓	X	2	
				A P				
				A P				
				A P				
				A P				
				A P				
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				A P				
				A P				
				A P				
				A P				

Turnaround Time:

no/mo

Laboratory Approval:

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date/Time <u>5/12/94 9:42 AM</u>
Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>[Signature]</u>	Date/Time <u>5/12/94 9:23 AM</u>
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Dispatched by: (Signature) <u>[Signature]</u>	Date/Time <u>5/12/94 11:23 AM</u>	Received for Laboratory by: <u>[Signature]</u>
		Date/Time <u>5/12/94 11:30</u>
Method of Shipment: <u>Hand Delivery</u>	Send Report To: <u>PES - Bill Tolon</u>	Client Phone No.: <u>696-3151</u>

The Laboratory reserves the right to return hazardous samples to the client or may levy an appropriate fee per container for disposal.

WHITE - Lab Copy

YELLOW - Sampler Copy

PINK - Generator Copy

Adirondack Environmental Services, Inc.